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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,547	05/16/2006	Juergen Detering	290078US0PCT	3959
22850 7590 03/27/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER PEZZUTO, HELEN LEE	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			03/27/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/579,547	Applicant(s) DETERING ET AL.	
	Examiner Helen L. Pezzuto	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/14/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendment to claims 1, 6, the cancellation of claim 3, and the addition of claims 7-22 filed in the response on 1/14/08 is acknowledged. Currently, claims 1-2, and 4-22 are pending in this application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morschhauser et al. (US-011 or US-507) for the reasons of record.

US 6,891,011 B2 to Morschhauser et al. discloses a water-soluble copolymer comprising at least 0.1 wt% of AMPS (A), 0.1-99.8 wt% of comonomers (C) such as DADMAC, MAPTAC, N-methyl-2-vinylpyridinium chloride and/or N-methyl-4-vinylpyridinium chloride and 0.1-99.8 wt% of macromonomer (F) defined within the scope of the instant polyalkylene

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oxide monomer (A), and quaternized nitrogen-containing monoethylenically unsaturated monomer (B) (col. 1, line 62 to col. 2, line 28; col. 3, lines 32-56; col. 6, line 45 to col. 8, line 34). The resultant copolymer is taught to have a molecular weight from 10^3 g/mol to 10^9 g/mol (col. 2, lines 29-32), with utility as thickening emulsifiers or dispersants in laundry detergent applications (col. 1, lines 9-12, 45-47).

Similarly, US 7,081,507 B2 to Morschhauser et al. discloses a water-soluble copolymer comprising at least 0.1 wt% of AMPS (A), 0.1-99.8 wt% of comonomers (D) such as DADMAC, MAPTAC, N-methyl-2-vinylpyridinium chloride and/or N-methyl-4-vinylpyridinium chloride defined within the scope of the instant quaternized nitrogen-containing monoethylenically unsaturated monomer (B), and 0.1-99.8 wt% of macromonomer (C) defined within the scope of the instant polyalkylene oxide monomer (A) (col. 1, line 59 to col. 2, line 12; col. 3, line 27 to col. 5, line 30; working Examples). The resultant copolymer is taught to have a molecular weight from 10^3 g/mol to 10^9 g/mol (col. 2, lines 13-16), having enhanced emulsifying and dispersing properties (col. 1, lines 48-52).

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US-011 and US-507 both disclose the recited (A), (B), and (C) recurring units as suitable monomers and comonomers in the formulation of water-soluble polymers, having utility as dispersant in laundry detergent compositions. Accordingly, it would have been obvious to one having ordinary skill in the art to formulate the claimed copolymer by selecting the suitable monomers and comonomers as suggested, and the utility of the resultant polymer as dispersant for in detergent compositions, motivated by the reasonable expectation of success. Once the motivation of selecting the suitable monomers and comonomer within the copolymer is provided within prior art general disclosures, the discovery of optimum or workable ranges of the respective components involves only routine skill in the art. Thus, rendering obvious the present claims.

3. Claim 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al. (US-887) or Morschhauser et al. (US-476) or Tembou N'Zudie (US-459).

US 6,187,887 B1 to Albrecht et al. discloses a water-soluble polymer suitably used in aqueous building materials, comprising at least four structural components a), b), c), and d). Specifically, prior art teaches 3-96

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mol% of component a) such as AMPS defined within the scope of the instant anionic monomer (C), 0.05-75 mol% of component c) defined within the scope of the instant quaternized nitrogen-containing monomer (B), and 0.01-50 mol% of component d) defined within the scope of the instant polyalkylene oxide monomer (A) (col. 3, line 9 to col. 4, line 44; col. 5, lines 9-15). The resultant copolymer is taught to have a number average molecular weight of 50,000 to 5,000,000 (col. 5, lines 19-21).

US 6,645,476 B1 to Morschhauser et al. discloses a water-soluble polymer suitably used as thickeners, derived from 50.1 to 99.9 mol% of a macromonomer (A) defined within the scope of the instant polyalkylene oxide monomer (A), comonomers (B) such as AMPS and (meth)acrylic acid, MAPTAC, APTAC and DADMAC are defined within the scope of the instant anionic monomer (C) and quaternized nitrogen-containing monomer (B), respectively (col. 2, line 17 to col. 4, line 8; claims 1-5). Prior art discloses a number average molecular weight of 1,000 to 20,000,000 for the resultant copolymer (col. 4, lines 9-15).

US 2003/0220459 A1 to Tembou N'Zudie discloses a heat sensitive water-soluble copolymer comprising 10-69 molar parts of at least one monomers I and II, 0-50 molar parts

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of at least one monomer III and IV, 0-30 molar parts of at least one monomer V and VI, 0-30 molar parts of at least one monomer E, and from 30-75 molar parts of at least one ethylenically unsaturated sulfonic acid such as AMPS encompassing the instant (C) monomer (see abstract; page 2, [0025] to page 3, [0073]; page 4, [0104]. Specifically, prior art monomers I, III, and IV embraces the instant monomer (A), and prior art E1 encompasses the instant monomer B (page 8, [0190]-[0199]; page 18, Example 28).

Prior art references discussed above disclose the recited (A), (B), and (C) recurring units as suitable comonomers in the formulation of water-soluble polymers with utility as thickeners. This makes their selection readily envisaged by one having ordinary skill in the art. Accordingly, it would have been obvious to one having ordinary skill in the art to formulate the claimed copolymer coupled with their utility as dispersant in aqueous systems as taught, motivated by the reasonable expectation of success. Once the motivation of selecting the suitable monomers and comonomer within the copolymer is provided within prior art general disclosures, the discovery of optimum or workable ranges of the respective

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components involves only routine skill in the art. Thus, rendering obvious the present claim 21.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helen L. Pezzuto/
Primary Examiner
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hlp